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Amendments to the Claims:

1. (Currently Amended) A calcium channel $\alpha_2\delta_2$ subunit wherein:
 - (a) it is soluble and retains the functional characteristics of the full-length or wild type human $\alpha_2\delta_2$ subunit from which it derives;
 - (b) its $\delta_2\delta$ peptide has a C-terminal truncation with respect to the complete $\delta_2\delta$ peptide from which it originates the amino acid sequence consisting of SEQ ID NO: 4, SEQ ID NO: 5 or SEQ ID NO: 6, said truncation being sufficient to render the truncated $\delta_2\delta$ peptide soluble; and
 - (c) its α_2 peptide comprises at least the ligand-interacting part(s) of the complete α_2 peptide from which it derives.
2. (Canceled)
3. (Canceled)
4. (Canceled)
5. (Previously Presented) A calcium channel $\alpha_2\delta_2$ subunit according to claim 1, wherein the full-length or wild-type $\alpha_2\delta_2$ subunit from which it derives is naturally expressed in the cerebral cortical.
6. (Previously Presented) A calcium channel $\alpha_2\delta_2$ subunit according to claim 1, wherein the full-length or wild-type $\alpha_2\delta_2$ subunit from which it derives is voltage-dependent.
7. (Previously Presented) A calcium channel $\alpha_2\delta_2$ subunit according to claim 1, wherein the $\alpha_2\delta$ subunit is cleaved.
8. (Currently Amended) A calcium channel $\alpha_2\delta_2$ subunit according to claim 1, wherein the $\alpha_2\delta_2$ subunit is cleaved into separate α_2 and $\delta_2\delta$ peptides.
9. (Previously Presented)) A calcium channel $\alpha_2\delta_2$ subunit according to claim 1, wherein the α_2 and δ peptides are disulfide-bridged.
10. (Previously Presented) A calcium channel $\alpha_2\delta_2$ subunit according to claim 1, wherein the $\alpha_2\delta_2$ subunit is not cleaved.
11. (Previously Presented) A calcium channel $\alpha_2\delta_2$ subunit according to claim 1, characterized in that it is purified or isolated.
12. (Previously Presented) A calcium channel $\alpha_2\delta_2$ subunit according to claim 1, characterized in that it is processed as the full-length or wild-type $\alpha_2\delta_2$ subunit from which it derives.
13. (Presently Presented) A calcium channel $\alpha_2\delta_2$ subunit according to claim 1, characterized in that it is producible by a baculovirus/insect cells expression system.
14. (Previously Presented) A calcium channel $\alpha_2\delta_2$ subunit according to claim 1, characterized in that it is produced by the baculovirus/insect cells expression system.